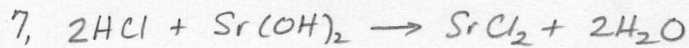


$$6. \quad 85.3 \text{ g KIO}_3 \times \frac{1 \text{ mol}}{214.0 \text{ g}} \times \frac{1}{250.0 \text{ mL}} \times \frac{1000 \text{ mL}}{1 \text{ L}} = 1.59 \text{ M KIO}_3$$

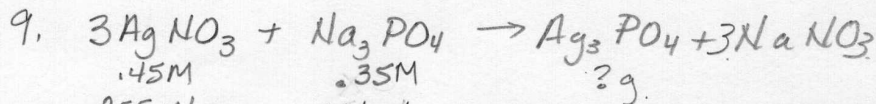


$$25. \text{ mL Sr(OH)}_2 \times \frac{1 \text{ L}}{1000 \text{ mL}} \times \frac{0.01 \text{ mol Sr(OH)}_2}{1 \text{ L}} \times \frac{2 \text{ mol HCl}}{1 \text{ mol Sr(OH)}_2} \times \frac{1 \text{ L}}{0.100 \text{ mol HCl}} \times \frac{1000}{1 \text{ L}} = 5.0 \text{ mL}$$

$$8. \quad 750.0 \text{ mL} \times \frac{1 \text{ L}}{1000 \text{ mL}} \times \frac{0.50 \text{ mol H}_2\text{SO}_4}{1 \text{ L}} \times \frac{1 \text{ L}}{18. \text{ mol}} \times \frac{1000 \text{ mL}}{1 \text{ L}} = 21 \text{ mL}$$

$$750.0 \text{ mL} - 21 \text{ mL} = 729 \text{ mL of H}_2\text{O}$$

$$750.0 \text{ mL} \times \frac{1 \text{ L}}{1000 \text{ mL}} \times \frac{0.50 \text{ mol H}_2\text{SO}_4}{1 \text{ L}} \times \frac{2 \text{ mol H}^+}{1 \text{ mol H}_2\text{SO}_4} = .75 \text{ mol H}^+$$



$\begin{array}{cc} .45\text{M} & .35\text{M} \\ 255 \text{ mL} & 111 \text{ mL} \\ \text{have } .11 \text{ mol} & .039 \text{ mol} \\ \text{need } .12 \text{ mol} & .037 \text{ mol} \end{array}$

$$48.7 \text{ g Ag}_3\text{PO}_4 = 16 \text{ g Ag}_3\text{PO}_4$$

$$3\text{Ag}^+ + 3\text{NO}_3^- + 3\text{Na}^+ + \text{PO}_4^{3-} \rightarrow \text{Ag}_3\text{PO}_4 + 3\text{Na}^+ + 3\text{NO}_3^-$$

have	.11 mol	.11 mol	.12 mol	.039 mol
used	.11 mol	0	0	.037 mol
	0	.11 mol	.12 mol	.002 mol
		.366 L	.366 L	.366 L
		.30M	.30M	.0055M
		NO ₃ ⁻	Na ⁺	PO ₄ ³⁻

$$.11 \text{ mol AgNO}_3 \times \frac{1 \text{ mol Ag}_3\text{PO}_4}{3 \text{ mol AgNO}_3} \times \frac{48.7 \text{ g Ag}_3\text{PO}_4}{1 \text{ mol Ag}_3\text{PO}_4} = 15 \text{ g Ag}_3\text{PO}_4$$